Relcross
Door, Security and Washroom Hardware

REL.RB3002L
Standard Duty
PIN Locks

INSTALLATION, OPERATION
AND PROGRAMMING GUIDE

REL.RB3002L Standard Duty PIN Locks
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Part 1
REL.RB3002L Standard Duty PIN Locks
INSTALLATION

Introduction

Please read this guide carefully before attempting to install or operate the lock. The manufacturer and/or their representatives cannot be held responsible for any damage or consequential loss caused by the incorrect installation, operation or unauthorized modification of this product. See warranty details at www.relcross.co.uk.

Use the **REL.RB3002L** on all standard duty, high security external door installations in commercial or residential environments and on any door where a flexible Euro profile key override system is required. Always check the validity of relevant certification when installing this product on fire compartmentation doors and on escape routes.

This product can operate most lock cases including multi-point locks and narrow stile lock cases. Listed below are some of the most common applications.

Choosing the Correct Application/Function for your Door

REL.RB3002L Sash Lock Function (key controlled cylinder version)

From the Outside:

This application utilizes a standard sash lock function that locks the door on the latch every time the door closes. An authorized PIN is required to override the latch from the outside unless the key override facility is used in which case the key will override any pre-set codes. Similarly, the key will override the deadbolt and the latch in sequence if the deadbolt is thrown.

From the Inside:

The door is always 'free from fixings' for immediate egress from the inside if a cylinder & turn combination is used to control the deadbolt.

Cylinder Choice:

Deadbolt control is dictated by your choice of cylinder, i.e. single cylinder, double cylinder or cylinder & turn. However, the single or double cylinder options MUST NOT be used on escape routes.

**Sashlock Function
(key controlled cylinder version)**

REL.RB3002L (NC) Sash Lock Function (non-cylinder version)

From the Outside:

This application utilizes a standard sash lock function that locks the door on the latch every time the door closes. Pressing the internal button prior to exiting engages the spindle and allows the external knob to drive the deadbolt to lock the door. An authorized PIN is required to allow the knob to control the deadbolt and the latch in sequence from the outside to unlock the door.

From the Inside:

The door is always 'free from fixings' for immediate egress from the inside via the knob.

Cylinder Choice:

This function does not require a cylinder - an internal cam drives the deadbolt.

**Sashlock Function
(non-cylinder version)**

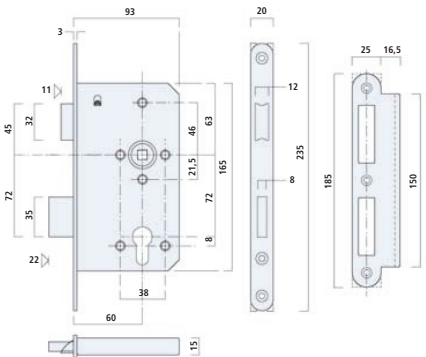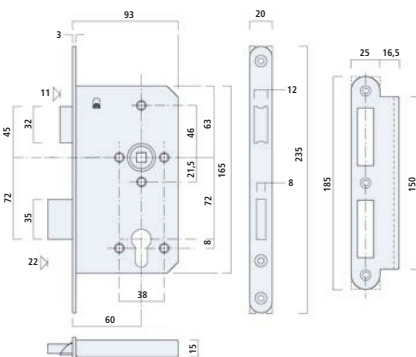## REL.RB3002L Escape Sash Lock Function

From the Outside:

This application utilizes an escape sash lock function that locks the door on the latch every time the door closes. An authorized PIN is required to override the latch and the deadbolt from the outside simultaneously.

From the Inside:

The door is always 'free from fixings' for immediate egress from the inside via the lever. The internal lever controls the latch and the deadbolt simultaneously when unlocking the door.

Cylinder Choice:

Deadbolt control is further dictated by your choice of cylinder, i.e. single cylinder, double cylinder or cylinder & turn.

Escape Sashlock

Important note

Careful consideration should be given to the inclusion of cylinder control from the inside - particularly on multiple dwellings.

For further guidance please call your supplier.

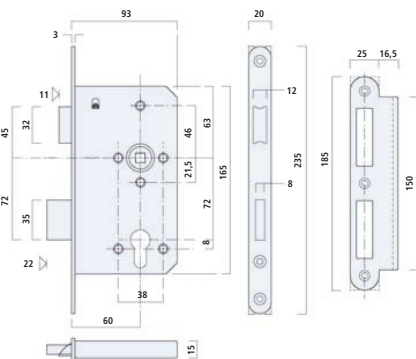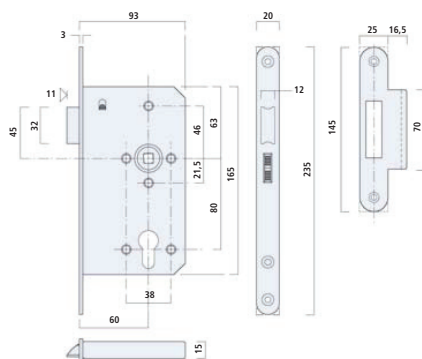## REL.RB3002L Cylinder Night Latch Function

From the Outside:

This application utilizes a standard night latch function that locks the door on the latch every time the door closes. An authorized PIN is required to override the latch from the outside unless the key override facility is used in which case the key will override any pre-set codes.

From the Inside:

The door is always 'free from fixings' for immediate egress from the inside via the lever.

Cylinder Choice:

This function does not necessarily require a cylinder. However, if desired, a single cylinder will control the latch from the outside. A catch on the lock forend will hold the latch bolt in the withdrawn position.

Cylinder Nightlatch

REL.RB3002L Double Throw Deadlock Function

From the Outside:

This application utilizes a double throw deadlocking latch that locks the door every time the door closes. An authorized PIN is required to override the deadlocking latch from the outside.

From the Inside:

The door is always 'free from fixings' for immediate egress from the inside via the lever.

Cylinder Choice:

This function does not accommodate a cylinder.
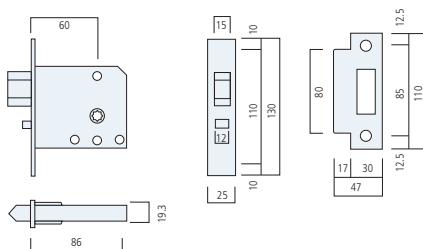
Double Throw Deadlock

Application Restriction

Do not use any of these products on military, police and fire service installations and other situations where heavy handed use/abuse can be expected.

Component Parts

Please familiarize yourself with the component parts included in this package. If any part is missing or damaged please contact your supplier in the first instance.

External Door Unit

Internal Door Unit

Rubber Mounting Gaskets

Internal

External

Battery Pack
3 x 1.5V AA size

Mounting Packs -
Containing Fixings for
Internal & External Lock Body
plus Cylinder & Escutcheons
(if supplied)

Lock case
(if supplied)

Door Preparation – Handing the lock and the door

All lock models are handed – hands cannot be reversed.

There are four distinct codes describing four possible applications:

When viewed in plan (i.e. from above)

LH Left Hand =
Clockwise closing door
with the digital keypad
on the push side.

**LHR Left Hand
Reverse =**
Anti-clockwise closing
door with the digital
keypad on the pull side.

RH Right Hand =
Anti-clockwise closing door
with the digital keypad on
the push side.
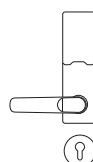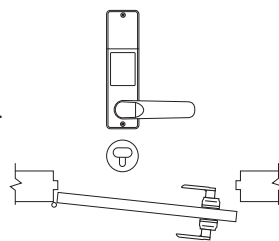
**RHR Right Hand
Reverse =**
Clockwise closing door
with the digital keypad
on the pull side.
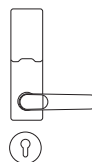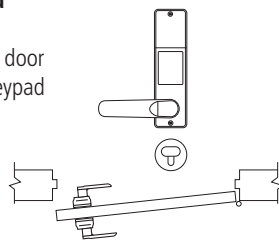
Please ensure that the hand of the lock you have suits the door in question. Your lock is either
LH (suits LH and LHR doors) or RH (suits RH and RHR doors). The keypad and fingerprint reader
is mounted to the un-secure side (i.e. outside) of the door.

Door Preparation – Templates

You have been provided with a template appropriate to your choice of lock case. Each template is handed (see previous page) and is designed for application to the **inside** face of the door.

The door preparation is common across each of the three options listed below assuming that you are using a cylinder to control the cylinder night latch function (if appropriate).

• Sash Lock Function (key controlled cylinder version)

• Escape Sash Lock Function

• Cylinder Night Latch Function

If you are using the Relcross supplied double throw deadlock function or the sash lock function (non-cylinder version) then you must use a separate template supplied with the lock case.

Apply the template to the inside face of the door.

Mark and prepare the holes on the door surface appropriate to the lock function.

Spindle Preparation –

The standard spindle suits square followers accepting 8mm square spindles set on the square. The sash lock function (non-cylinder version) has a separate spindle designed to drive an internal cam in lieu of a Euro profile cylinder.

The standard spindle length suits doors to 65mm thick.

Where door thicknesses are <40mm it is advisable to cut the spindle length to avoid applying pressure to the spindle and damaging the motor.
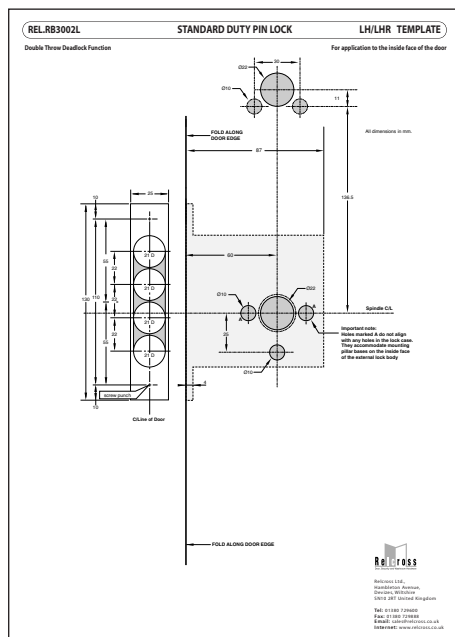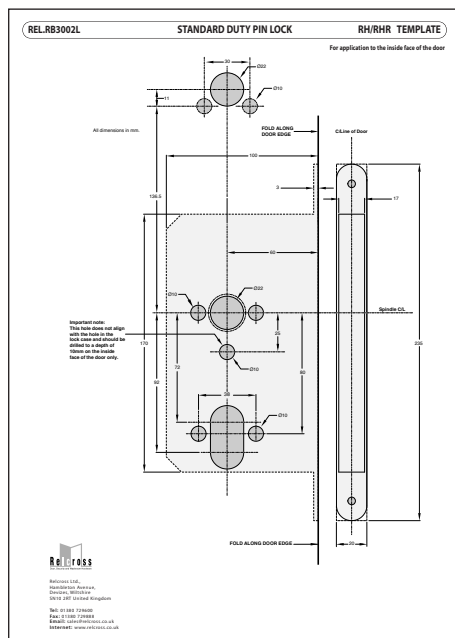
Installation

<u>Lock Case</u>

Ensure the lock case is installed correctly and that the mounting pillar holes (adjacent to the follower) are aligned and visible.

If a separate cylinder or cylinder & turn forms part of the installation then this should be installed next along with the escutcheon set. Ensure that the latch and deadbolt is free to move under control of the key and the cylinder turn. Ensure that the handing of the latch is appropriate to the hand of the door - handing does not apply to the double throw deadlock function.

If a sash lock is installed then the bolt should be retracted.
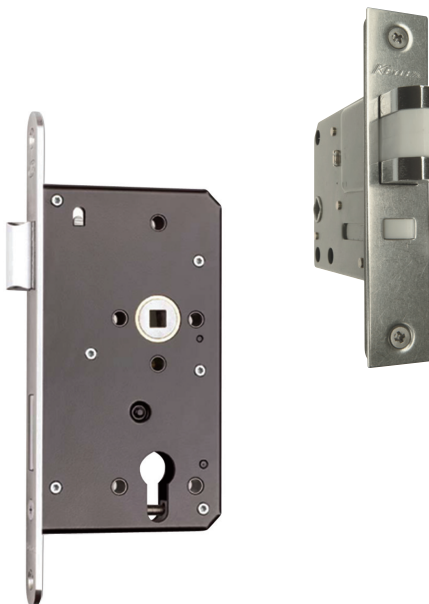
<u>External Lock Body</u>

Select the appropriate rubber gasket to match the external lock body and place this over the back of the lock body - feeding the mounting pillars, the cable and the spindle through the clearance holes. Each gasket has a lip into which the lock body sits comfortably.

The spindle should be turned to ensure that the **UP** ↑ symbol is visible to the vertical face of each side of the spindle and that the arrows point upward. It is essential that the spindle is fed through the follower in this orientation otherwise the spindle will not drive the lock case.

Feed the lock body and gasket onto the door via the mounting pillars and spindle. Ensure the cable is fed through the door and that it does not become trapped between the lock body and the door face.

The external lock body is held in place initially from the opposite side the door via the 'V' shaped bracket. This bracket is a necessary aid providing a third fixing for the internal lock body when using the traditional cylinder lock case - this bracket does not apply to the double throw deadlock function.

Fix the V shaped bracket to the internal face of the door (immediately below the spindle) via the lock case such that the threaded boss at the base of the bracket sits in the lower of the three prepared holes. The threaded boss will not align with the hole in the lock case – this is correct.

The external lock body is now clamped firmly to the door.

Internal Lock Body

Remove the three uppermost batteries from the internal lock body revealing the two clearance holes.

Select the appropriate rubber gasket to match the internal lock body and place this over the back of the lock body - feeding the cable through the clearance hole. Each gasket has a lip into which the lock body sits comfortably. You will notice, with the lock body in place and orientated correctly that the V shaped depression in the gasket is visible towards the base of the internal lock body.

Offer up the internal lock body to the door and carefully connect the two cables together via the plug. Try to avoid allowing the internal lock body to hang from the cable before feeding it over the spindle.

Ensure the cable is coiled carefully into the void above the lock case and that it is not jammed between the lock body and the door face. Move the internal lock body firmly to the inside face of the door and fix it via the two uppermost pillars and the remaining screw at the base of the lock body (i.e. below the lever).

Depress the lever to test the operation of the lock.

Insert the batteries and replace the battery cover.

Part 2
REL.RB3002L Standard Duty PIN Locks
OPERATION AND PROGRAMMING

Section One – Basic Settings

Initial Check

Ensure the lock case, cylinder and furniture have been installed in accordance with the instructions and templates provided. Ensure that the door cannot close fully into the frame to avoid a lock out situation before PINs are set.

Factory Settings (Including Reset)

With the batteries in place (at the correct polarity) and the battery cover secure, check that the factory settings are working correctly.

1. The lock should operate by default as follows:

- Lift the keypad cover fully to expose the external keypad
- One press of the **external power button** (short beep) triggers the night view light behind the external keypad. The keypad remains illuminated for three seconds and then goes out (the red LED flashes three times) unless a valid operation is performed.
- 'Night View' is the only operational function of the power button
- Entering the default master PIN **1 - 2 - 3 -*** at the keypad engages the motor (audible), a short beep is heard and the green LED flashes once. The motor is engaged for approximately 5 seconds allowing the outside lever to operate the latch – this operational mode will remain until the first administrator (master) PIN is set.
- To improve security we recommend amending the default master PIN (at the first opportunity) to something less predictable (see the important note below). The amended default master PIN then becomes the first administrator PIN
- Please note. The lock must always contain at least one operable PIN

Should the above operation not engage the motor then the lock must be reset before enrolment of administrators and users can take place.

2. Resetting the Lock:

- Remove both the internal and external lock bodies (if already fitted) from the door. Ensure the batteries remain in place and that the cable between the two parts is connected
- Locate the **reset button** (on the rear of the external lock body) visible through the centre hole in the lock body case, approximately half way up the back plate
- Locate the **external power button** (on the opposite side of the same unit)
- Press and keep the **reset button** depressed. You will hear a loud continuous beep
- With the **reset button** depressed, press the **external power button**
- Release the **reset button** and the **external power button** in that order
- You will hear two long beeps confirming that the reset was successful and that the factory settings mentioned above will operate the lock

IMPORTANT NOTE – IT IS RECOMMENDED THAT THE ADMINISTRATOR OPTION, I.E. FIRST ADMINISTRATOR PIN BE SET UP BEFORE ANY OTHER PROCEDURE IS CARRIED OUT. IF YOU DO NOT ADDRESS THIS REQUIREMENT THEN PRESSING **1 - 2 – 3 -*** WILL OPEN THE DOOR AND SECURITY WILL BE COMPROMISED.

PINs – General

This lock uses only one type of PIN – in two possible entry modes.

User PIN – The lock accepts PIN entry (up to a maximum of 10 separate PINs) identifying individuals or groups of users including two administrators. PINs may vary in length between 1 – 10 digits. Relcross recommends choosing PINs between 3 and 6 digits long to ensure security is maintained whilst ease of use is also addressed.

In this way multiple locks may be coded in such a way as to control access for different users through certain doors.

Common PIN – The lock requires a common PIN (one PIN issued to all users). Administrators have alternative separate PINS. All PINs may vary in length between 1 – 10 digits. Relcross recommends choosing PINs between 3 and 6 digits long to ensure security is maintained whilst ease of use is also addressed.

How to set and where to use PINs will be explained later in this document under the appropriate entry mode section.

Section Two – Administrator Settings

Relcross recommends that all systems have two administrators – a Master Administrator and a Secondary Administrator; each able to administrate PINs equally.

Enrolling the Administrator/s (PIN)

In common with all access control systems it is necessary for this system to be managed. The enrolment of authorized users is controlled by an administrator. Only two administrators may be enrolled. Once set up each administrator is equally powerful. One cannot delete another unless a full reset takes place (see above).

When deemed necessary to protect against unauthorized tampering of the reset process – replace the Phillips head fixing screws (supplied with the installation kit) with Pin Torx screws or similar security devices.

The Master Administrator (first) owns the master PIN and should be enrolled immediately to ensure that security is maintained at the door.

1. Master Administrator Enrolment (First)

At the external keypad enter the following sequence:

- *** - 0 - 123 - * - new master PIN - * - repeat new master PIN - ***
- You will notice that during this sequence (after entering the second *) the green LED flashes three times then (after entering the third *) the green LED flashes three more times. At the end of a successful sequence the green LED lights and a long beep is heard.
- If the red LED flashes **during or after** this sequence then the operation has failed and must be repeated

Example with the master PIN set to 850001

- *** - 0 - 123 - * - 850001 - * - 850001 - ***

To operate the lock, i.e. unlock the door, the Master Administrator enters **850001 - ***. The motor will engage and the lever becomes operable for approximately 5 seconds

2. Secondary Administrator Enrolment (example with the master PIN set to 850001 - substitute accordingly)

At the external keypad enter the following sequence:

- *** - 1 - 850001 - * - new secondary master PIN - * repeat new secondary master PIN - ***
- You will notice that during this sequence (after entering the second *) the green LED flashes three times then (after entering the third *) the green LED flashes three more times. At the end of a successful sequence the green LED lights and a long beep is heard.
- If the red LED flashes **during or after** this sequence then the operation has failed and must be repeated

Example with the secondary master PIN set to 850002

- *** - 1 - 850001 - * - 850002 - * - 850002 - ***

To operate the lock, i.e. unlock the door, the Secondary Administrator enters **850002**. The motor will engage and the lever becomes operable for approximately 5 seconds

IMPORTANT NOTE – THE MASTER ADMINISTRATOR OWNS PIN – 0 AND THE SECONDARY ADMINISTRATOR OWNS PIN – 1. ADMINISTRATOR RIGHTS ENABLE THE ENROLMENT AND DELETION OF USERS.

Entry Modes

Before enrolment of general users takes place it is necessary to determine which one of two separate entry modes your lock will use. This choice does not affect the way PINs are enrolled but it does affect the structure of the code or codes issued. The choice is as follows:

Mode 1 - User PIN
The lock accepts PIN entry (up to a maximum of 10 separate PINs) identifying individuals or groups of users including two administrators. PINs may vary in length between 1 – 10 digits. Relcross recommends choosing PINs between 3 and 6 digits long to ensure security is maintained whilst ease of use is also addressed.

In this way multiple locks may be coded in such a way as to control access for different users through certain doors. Or, where small numbers of users are involved, it is possible to issue individual PINs and remove or add users as and when it becomes necessary.

Mode 2 - Common PIN
The lock requires a common PIN (one PIN issued to all users). Administrators have alternative separate PINS. All PINs may vary in length between 1 – 10 digits. Relcross recommends choosing PINs between 3 and 6 digits long to ensure security is maintained whilst ease of use is also addressed.

IMPORTANT NOTE – CHANGE PINS REGULARLY AND INSTRUCT USERS TO MEMORIZE PINS RATHER THAN WRITE THEM DOWN. AVOID USING TELEPHONE NUMBERS. AVOID USING THE EXAMPLES SHOWN IN THIS GUIDE.

Section Three – General User Settings

Although the lock allows two separate Entry Modes (as we have seen described in the previous section) it is only necessary to enrol general users with one PIN:

Enrolling General Users (PIN)

Where general PINs (i.e. non-administrator PINs) are to be enrolled they will each be given a unique ID number as part of the enrolment process. The first number should be designated **2**. It is possible to enrol a maximum of 8 general PINs in this manner with ID numbers ranging from **2** to **9** inclusive.

A detailed record of all user names, ID numbers and corresponding PINs should be kept for system management purposes.

1. General User Enrolment (example with the master PIN set to 850001 - substitute accordingly)

At the external keypad enter the following sequence:

- *** - (2/9) - 850001 - * - new general user PIN - * repeat new general user PIN - ***
- You will notice that during this sequence (after entering the second *) the green LED flashes three times then (after entering the third *) the green LED flashes three more times. At the end of a successful sequence the green LED lights and a long beep is heard.
- If the red LED flashes **during or after** this sequence then the operation has failed and must be repeated
- NB **(2/9)** denotes a single digit between 2 and 9 inclusive

Example with the master administrator performing the task and the new general user PIN (allocated ID number 2) set to 850003

- *** - 2 - 850001 - * - 850003 - * - 850003 - ***

To operate the lock, i.e. unlock the door, the new general user enters 850003 - *. The motor will engage and the lever becomes operable for approximately 5 seconds

Deleting General Users (PIN)

From time to time it will become necessary to delete users. Both administrators are empowered to carry out this procedure. The detailed record of all user names and corresponding user ID numbers should be updated accordingly. Deleted user ID numbers may be reused for new users immediately.

1. General User Deletion (Single Deletions)

At the external keypad enter the following sequence (where the user ID to be deleted is 5):

- *** - 5 - Administrator's PIN - #**
- You will notice that during this sequence (after entering 5) the green LED flashes once. At the end of a successful sequence the green LED flashes three times in tandem with three short beeps. If the red LED flashes the operation has failed and must be repeated

Example with the master PIN set to 850001 and user ID - 5 is to be deleted

- *** - 5 - 850001 - #**

Please note. Administrator PINs cannot be deleted in this manner.

Section Four – Operational Modes

All of the operational and entry modes described herein assume that the key controlled dead bolt (a function of the sash lock if supplied) has not been thrown.

The default mode for the lock is '**automatic locking**'. The locked door status is overridden for 5 seconds upon acceptance of a valid PIN - see also Entry Modes (above).

An '**anti-malicious**' mode is available, in tandem with the '**automatic locking**' mode, allowing a maximum of 5 spurious/incorrect PINs before the lock shuts down for 3 minutes.

An alternative '**temporarily unlocked**' mode is available offering a free passage function until reset by the administrator.

Setting the Temporary Unlocking Mode (TUM)

At the external keypad enter the following sequence

- **# - 1 - Administrator's PIN - # - 1**
- You will notice that during this sequence the green LED flashes once prior to entry of the Administrator's PIN and three times prior to entry of the second 1. At the end of a successful sequence the green LED flashes once and a long beep is heard

Example with the master PIN set to 850001

- **# - 1 - 850001 - # - 1**
- The administrator must now activate **TUM** using a valid PIN entry in the usual manner

The motor has now engaged the spindle and the lever will drive the latch with no 'time-out'.

In **TUM** an administrator may lock out other users by entering their **PIN** followed by - **#**

Example with the master PIN set to 850001

- **850001 - #**

This action disengages the motor until an administrator (Master or Secondary) enters their PIN again at which time **TUM** is reinstated. TUM can only be deactivated permanently by returning the lock to **ALM** see below.

IMPORTANT NOTE – IT IS POSSIBLE TO TOGGLE QUICKLY BETWEEN **TUM** AND **ALM** WHEN THE LOCK IS IN THIS MODE. EACH VALID PIN ENTRY WILL REVERSE THE STATUS OF THE LOCK. IT IS PRUDENT, THEREFORE, TO ENSURE THAT USERS ARE AWARE OF THE DESIRED STATUS OF THE LOCK AT ALL TIMES AND THAT THEIR ACTIONS MAY AFFECT SECURITY AT THE DOOR.

Permanently Setting or Reinstating the Automatic Locking Mode (ALM)

At the external keypad enter the following sequence

- **# - 1 - Administrator's PIN - # - 0**
- You will notice that during this sequence the green LED flashes once prior to entry of the Administrator's PIN and three times prior to entry of the 0. At the end of a successful sequence the green LED flashes once and a long beep is heard
- The administrator must now activate **ALM** using a valid PIN entry in the usual manner

  Once **ALM** is properly activated using this routine it is not possible to reverse it without using the method described in the section **Setting the Temporary Unlocking Mode (TUM)** above.

Activating the Anti-Malicious Mode (AMM) - Recommended

Anti-malicious mode allows a maximum of 5 spurious/incorrect PINs before the lock shuts down for 3 minutes.

At the external keypad enter the following sequence

- **# - 2 - Administrator's PIN - # - 1**
- You will notice that during this sequence the green LED flashes once prior to entry of the Administrator's PIN and three times prior to entry of the 1. At the end of a successful sequence the green LED flashes once and a long beep is heard
- **AMM** is now activated – after a series of 5 malicious attempts the lock will shut down and fall silent when buttons are pressed
- When shut-down has timed out (after 3 minutes) both LEDs (green & red) will flash once simultaneously and a long beep will be heard
- **AMM** remains activated. However, the lock may now be used in the usual manner

Deactivating the Anti-Malicious Mode (AMM)

At the external keypad enter the following sequence

  - **# - 2 - Administrator's PIN - # - 0**
  - You will notice that during this sequence the green LED flashes once prior to entry of the Administrator's PIN and three times prior to entry of the 0. At the end of a successful sequence the green LED flashes once and a long beep is heard
  - **AMM** is now deactivated

Section Five – Unlocking per Entry Mode

PIN Mode

To operate the lock, i.e. unlock the door, the user enters their PIN followed by *** or #**. The motor will engage immediately and the lever becomes operable for approximately 5 seconds. If the user PIN is entered without the *** or #** then the motor will engage after a delay of 3 seconds.

Section Six – Batteries

Battery Specification

The battery pack consists of:

3 x 1.5V AA Alkaline Batteries.

Choose batteries with a high energy output and with a good low temperature performance.
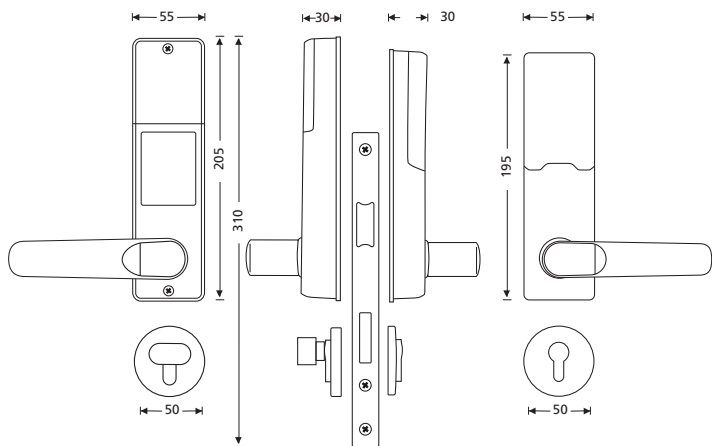
Audible Low Power Alert

This standard feature provides an early opportunity to exchange batteries. Batteries should be exchanged always as a complete group of three.

EEPROM Non Volatile Memory

This feature ensures data retention during battery exchange.

Critical Dimensions

This sketch shows the sash lock option. See also illustrations on pages 4, 5 & 6 for lock case and backset details.

Door, Security and Washroom Hardware